

## WHAT IS CLAIMED IS:

1. A performance counter framework for rendering performance counter data in a system including a performance counter provider application and a performance counter consumer application, the performance counter framework comprising:  
5 an application program interface comprising a set of functions including:  
a counter registration function called by the performance counter provider application to register a performance counter structure within an address space of the counter provider application, wherein the counter registration function  
10 registers an access function for retrieving performance counter data from the performance counter structure; and  
a counter query function called by the performance counter consumer application to retrieve counter data from the performance counter structure within the address space of the counter provider application by invoking the access  
15 function.
2. The performance counter framework of claim 1 wherein the access function operates within the address space of the counter provider application to retrieve the performance counter data from the performance counter structure.  
20
3. The performance counter framework of claim 2 wherein the access function is a callback function.
4. The performance counter framework of claim 1 wherein the registration  
25 function further supports specifying a data template describing the performance counter data.
5. The performance counter framework of claim 1 wherein the application program interface includes a method for installing a description of the performance data  
30 furnished by a provider associated with the performance counter provider application.

6. The performance counter provider of claim 5 wherein the description of the performance data includes a performance counter data schema.

5 7. The performance counter framework of claim 1 wherein the application program interface includes a method for requesting a block of dataitems to be created according to a specified dataset template.

8. The performance counter framework of claim 1 wherein the application program interface includes a method for providing a list of registered datasets.

9. A method for rendering performance counter data in a system including a performance counter provider application and a performance counter consumer application, the method comprising:

5        calling a counter registration API function to register a performance counter structure within an address space of the counter provider application, wherein the counter registration function registers an access function for retrieving performance counter data from the performance counter structure; and

10        calling a counter query API function to retrieve counter data from the performance counter structure within the address space of the counter provider application by invoking the access function.

10. The method of claim 9 wherein the access function operates within the address space of a counter provider application to retrieve the performance counter data  
15        from the performance counter structure.

11. The method of claim 10 wherein the access function is a callback function.

12. The performance counter framework of claim 9 wherein the registration  
20        API function further supports specifying a data template describing the performance counter data.

13. The method of claim 9 wherein the application program interface includes a method for installing a description of the performance data furnished by a provider  
25        associated with the performance counter provider application.

14. The method of claim 13 wherein the description of the performance data includes a performance counter data schema.

30        15. The method of claim 9 further comprising the step of:

requesting a block of dataitems to be created according to a specified dataset template.

16. The method of claim 9 further comprising providing a list of registered  
5 datasets.

17. A computer-readable medium including computer-executable instructions facilitating rendering performance counter data in a system including a performance counter provider application and a performance counter consumer application, computer-executable instructions facilitating executing the steps of:

5        calling a counter registration API function to register a performance counter structure within an address space of the counter provider application, wherein the counter registration function registers an access function for retrieving performance counter data from the performance counter structure; and

10        calling a counter query API function to retrieve counter data from the performance counter structure within the address space of the counter provider application by invoking the access function.

18. The computer-readable medium of claim 17 wherein the access function operates within the address space of a counter provider application to retrieve the  
15        performance counter data from the performance counter structure.

19. The computer-readable medium of claim 18 wherein the access function is a callback function.

20        20. The computer-readable medium of claim 17 wherein the registration API function further supports specifying a data template describing the performance counter data.

21. The computer-readable medium of claim 17 wherein the application  
25        program interface includes a method for installing a description of the performance data furnished by a provider associated with the performance counter provider application.

22. The computer-readable medium of claim 21 wherein the description of the performance data includes a performance counter data schema.

30

23. The computer-readable medium of claim 17 further comprising computer executable instructions facilitating performing the step of:

requesting a block of dataitems to be created according to a specified dataset template.

5

24. The computer-readable medium of claim 17 further comprising computer executable instructions facilitating performing the step of:

providing a list of registered datasets.

10

25. A method for maintaining and providing performance counter data rendered by counter provider applications to counter consumers, the method comprising the steps of:

registering a counter provider associated with a provider application within a repository of counter provider descriptions, wherein each counter provider entry in the repository includes a performance counter structure within an address space of the counter provider application, and an access function for retrieving performance counter data from the performance counter structure;

15

storing performance counter information within the performance counter structure; and

20

retrieving the performance counter information from the address space within the provider application via the access function, in response to a performance counter query specifying the counter provider.

26. A performance counter provider application for use in a performance counter system embodying a performance counter provider/consumer model, the performance counter provider comprising executable instructions for:

- 5 requesting, via an application program interface, an operating system to allocate a memory space within the provider application for a performance counter data structure;
- storing performance counter information within the memory space; and
- providing access by a registered callback function, invoked by a call to the application program interface, to the memory space containing the performance counter data structure.

10

27. A performance counter system comprising:

- a performance counter provider;
- a performance counter consumer; and
- an operating system performance counter application program interface

15 comprising a first set of functions callable by a performance counter provider application to register the performance counter provider in a repository, and a second set of functions for serving requests originating from the performance counter consumer to enumerate and access the performance counter provider.